Contribution to the knowledge of Dermestidae (Coleoptera) from the Maluku Islands (Indonesia), part 2. Description of four new species of *Orphinus* Motschulsky, 1858

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Abstract: Four species of Dermestidae are described, illustrated and compared as follows: *Orphinus* (s. str.) *soleae* sp. nov., *Orphinus* (s. str.) *jakli* sp. nov., *Orphinus* (s. str.) *prescutellaris* sp. nov. and *O.* (s. str.) *buruanus* sp. nov., all from the Maluku Islands, belonging to the nominotypical subgenus. The species *Orphinus* (s. str.) *wau* Háva, 2014 is newly recorded from West Papua.

Key words: Coleoptera, Dermestidae, Megatomini, *Orphinus*, Maluku Islands, taxonomy, new species.

Introduction

The family Dermestidae (Coleoptera: Bostrichoidea) contains about 1500 species and subspecies worldwide (Háva 2015). Its members are "mainly scavengers on dried proteinaceous material and are of economic importance because the family includes species that are pests of stored products or natural history enemies" (Lawrence & Ślipiński 2005).

The Dermestidae from Maluku Islands were recently dealt with by Háva (2014b). Works dealing with Dermestidae from Indonesian Papua were published by Háva (2011; 2014a) and Kadej & Háva (2013; 2014). So, the Dermestidae from Maluku Islands have been only sparingly studied, four species being reported, which belong to the subfamilies Dermestinae, Attageninae and Megatominae. In the present article, four new species are described from Buru and Seram Islands, belonging to the genus *Orphinus*.

Materials and methods

The size of the beetle and of its body parts can be useful in species recognition, so following measurements were made:

total length (TL) – linear distance from anterior margin of pronotum to apex of elytra.

elytral width (EW) – maximum linear transverse distance.

Specimens of the presently described species are provided with red, printed label with the text as follows: "HOLOTYPE [or PARATYPE, respectively] *name of taxon* sp. nov. Jiří Háva det. 2016".

Abbreviations used in the text:

BMNH – The Natural History Museum, London, United Kingdom;
JHAC – Jiří Háva, Private Entomological Laboratory & Collection, Únětice u Prahy, Prague-west, Czech Republic (will be deposited in the Czech University of Life Sciences, Prague).

Taxonomic part

Orphinus Motschulsky 1858

Orphinus wau Háva, 2014

Material examined 2♀ JHAC: Indonesia, West Papua, Manokwari distr., Maibri vill., Arfak Mts., 1570 m, 5-19. xii.2012, J. Horák lgt.

Distribution: A species known from Papua New Guinea: Wau, new to West Papua: Manokwari district.

Orphinus (s. str.) ***soleae* sp. nov.** (Figs 1-3)
Holotype ♂ JHAC: Maluku, Seram, 12 km SE Wahai, Solea, i.1999, ex larva, J. Horák lgt.
Paratypes 2♀ JHAC: the same data as holotype; 1♀ BMHN: Indonesia: Seram, Solea, Malaise Trap on River bank, viii.1987, M.C. Day, BMNH{E}2004-198.

Derivatio nominis: Toponymic, named after the type locality Solea.

Description: Male. Body oval, TL 2.8 mm, EW 1.8 mm. Head, pronotum and elytra black, shiny, with white fasciae (Fig. 1), black on venter. Head finely punctate with long, erect, black setation. Palpi brown; setation on mentum denser. Eyes small, with brown microsetae. Ocellus on front present. Antennae brown with yellow setae, with 11 antennomeres, antennal club with 2 antennomeres, terminal antennal segment circular (Fig. 2). Pronotum black, disc finely punctate, densely foveolate posteriorly, with long, erect, black and white setation. Scutellum black, triangular, without setation. Elytra finely punctate; humerus with a small bump; elytral surface with long, erect black and white setation; cuticle black, white setation forming two spots (one near scutellum and one apically) and two transverse fasciae (Fig. 1). Epipleuron black, anteriorly broad, finely punctate, with short, black setation. Legs dark brown with yellow setation. Mesosternum coarsely punctate laterally, otherwise finely punctate, covered by long, recumbent, white setation. Abdominal visible ventrites dark brown to black, with long, recumbent, white setation. Male genitalia as in Fig. 3.

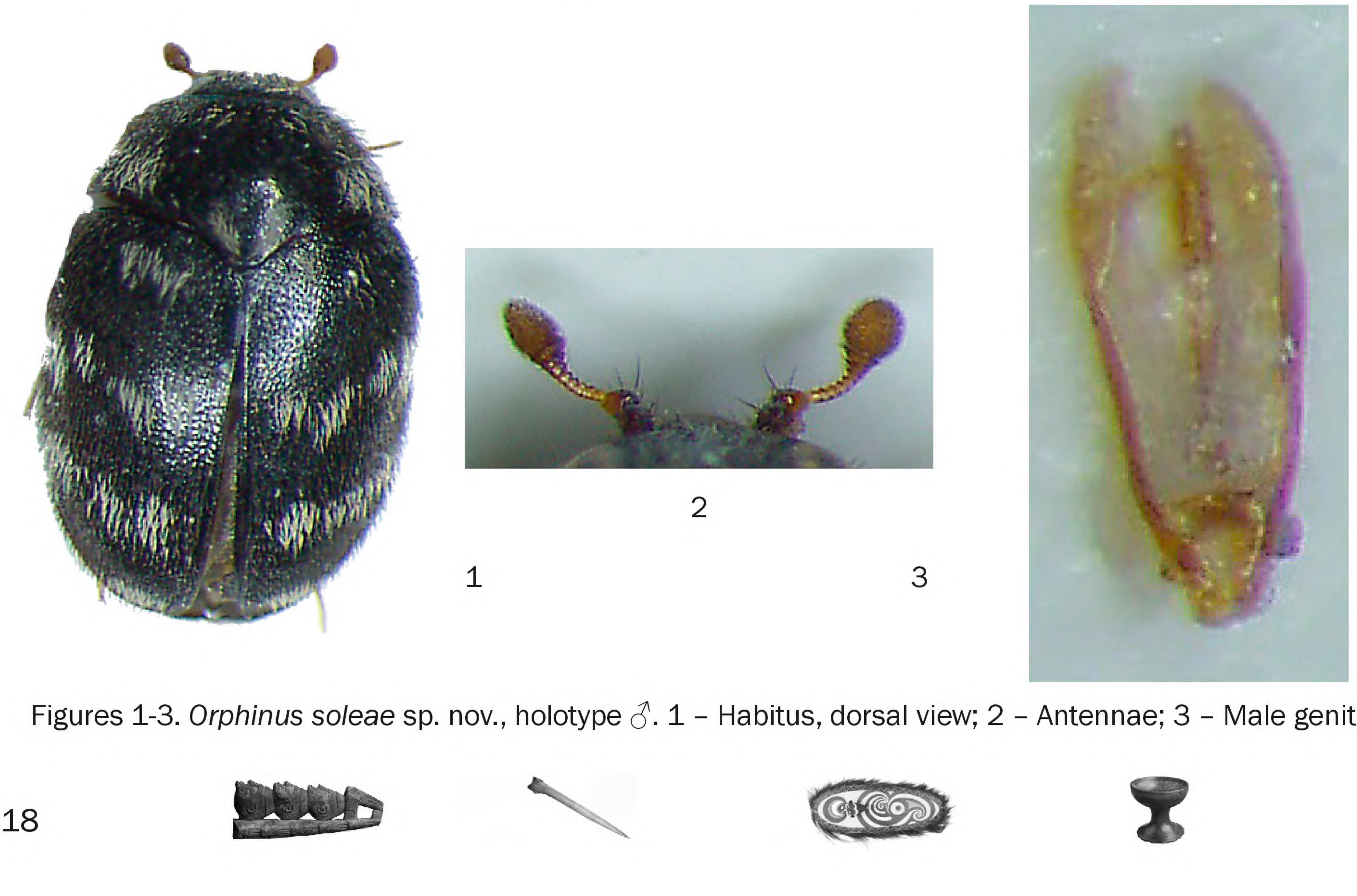
Sexual dimorphism: Female externally similar to male, but differs by its small antennal terminal antennomere.

Differential diagnosis: The new species is similar to *O. wau* Háva, 2014 (Papua New Guinea: Wau, West Papua: Manokwari district) but differs from it by the elytral fasciae (*O. soleae* has white transverse fasciae, divided into spots; *O. wau* has whitish-grey transverse fasciae, not divided into spots) and the antennal club structure.

Orphinus (s. str.) ***jakli* sp. nov.** (Figs 4-6)
Holotype ♂ JHAC: Indonesia, Maluku, E Buru, Ilath env., Remaja Mt., 200 m, 7-14.i.2013, J. Horák lgt.
Paratypes 3 specimens JHAC: IND: C Moluccas, Buru Is., Ilath env., Remaja Mt., 200-350m, 5-18.i.2013, S. Jakl lgt.

Derivatio nominis: Patronymic. The new species is dedicated to Stanislav Jákl (Prague, Czech Republic), a world known expert in the beetle family Scarabaeidae subfamily Cetoniinae.

Description: Male. Body oval, TL 2.6 mm, EW 1.6 mm. Head black, pronotum and elytra black and reddish, shiny, with white fasciae (Fig. 4), black on venter. Head finely punctate with long, erect, black setation. Palpi brown; setation on mentum denser. Eyes small, with brown microsetae. Ocellus on front present. Antennae brown with yellow setae, with 11 antennomeres, antennal club with 2 antennomeres, terminal antennal segment circular (Fig. 5). Pronotum black with small indistinct reddish spots, disc finely punctate, densely foveolate posteriorly, with long, erect, black and white setation. Scutellum black, triangular, without setation. Elytra finely punctate; humerus with a small bump; elytral surface with long, erect



Figures 1-3. *Orphinus soleae* sp. nov., holotype ♂. 1 – Habitus, dorsal view; 2 – Antennae; 3 – Male genitalia.

black and white setation; cuticle black and reddish; cuticular reddish spots and fasciae covered by white setation (a spot near scutellum and another one apically) and two transverse fasciae (Fig. 1). Epipleuron black, anteriorly broad, finely punctate, with short, black setation. Legs dark brown with yellow setation. Mesosternum coarsely punctate laterally, otherwise finely punctate, covered by long, recumbent, white setation. Abdominal visible ventrites black, with long, recumbent, white setation. Male genitalia as in Fig. 6.

Sexual dimorphism: Female externally similar to male, but differs by its small antennal terminal antennomere.

Differential diagnosis: The new species is externally very similar to *O. soleae* sp. nov. but differs from it by the elytral cuticular reddish fasciae covered by white setation (in *O. soleae*, the elytra are unicolorously black with white spots, without reddish fasciae), structure of antennae and male genitalia.

Orphinus (s. str.) ***prescutellaris* sp. nov.** (Figs 7-10)

Holotype ♂ JHAC: Indonesia, Maluku, E Buru, Ilath env., Remaja Mt., 200 m, 7-14.i.2013, J. Horák lgt.

Paratypes 28 specimens JHAC: 11 specimens same label as in holotype; 17 specimens: IND: C Moluccas, Buru Is., Ilath env., Remaja Mt., 200-350m, 5-18.i.2013, S. Jakl lgt.

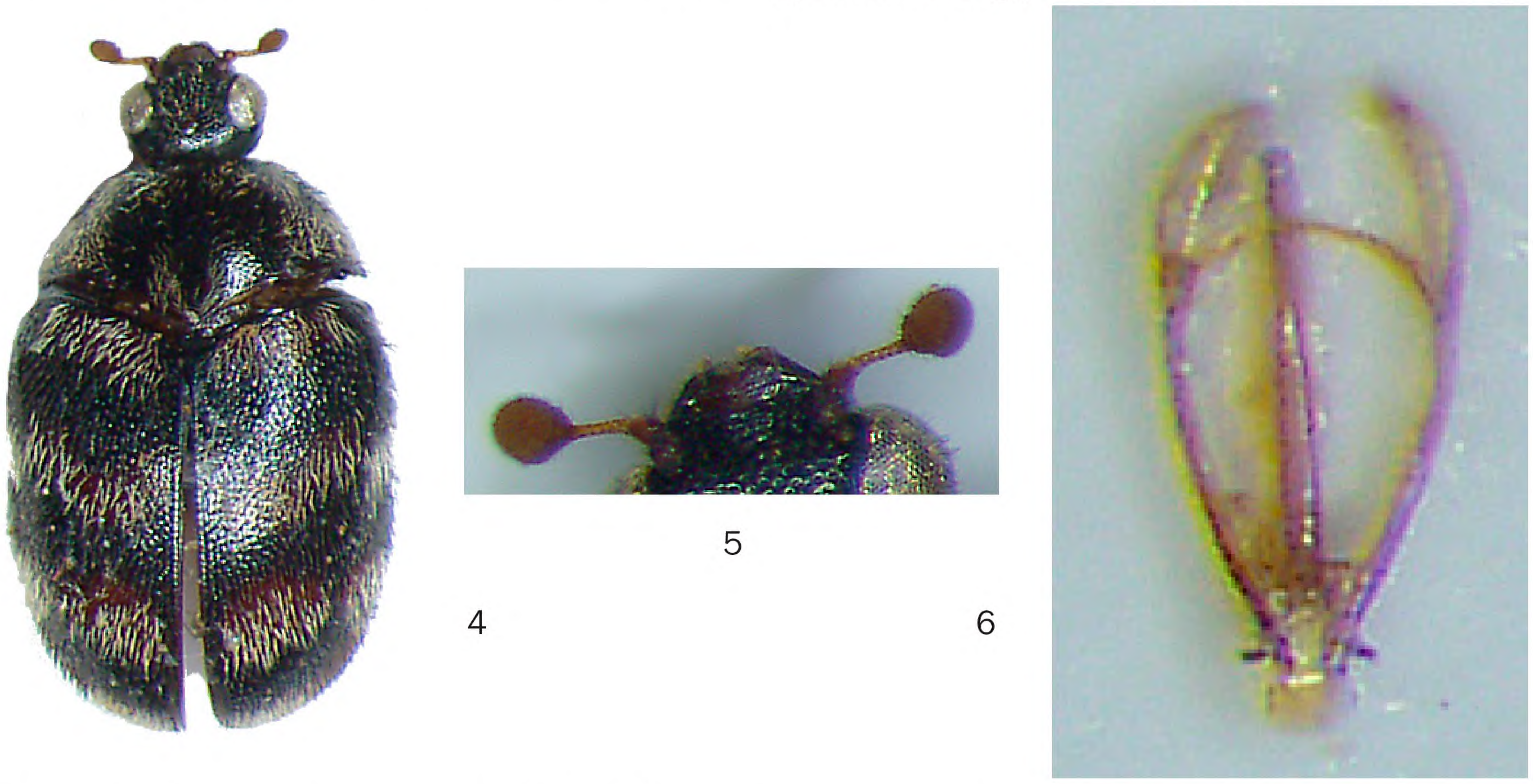
Derivatio nominis: The name is based on the presence of the elytral prescutellar spot.

Description: Male holotype. Body oval, TL 1.6 mm, EW 1.1 mm. Head and pronotum black, elytra black and orange-reddish, shiny, with fasciae (Fig. 7), black on venter. Head finely punctate with long, erect, yellow setation. Palpi brown; setation on mentum denser. Eyes small, with brown microsetae. Ocellus on front present. Antennae brown with yellow setae, with 11 antennomeres, antennal club with 2 antennomeres, terminal antennal segment circular (Fig. 9). Pronotum black, disc finely punctate, densely foveolate posteriorly, with long, suberect, yellow setation. Scutellum black, triangular, without setation. Elytra finely punctate; humerus with a small bump; elytral surface with long, suberect black and yellow setation; cuticle black and orange-reddish; cuticular orange-reddish spots and fasciae covered by yellow setation (a spot near scutellum and a transverse medial fascia in apical third) (Figs 7-8). Epipleuron black, anteriorly broad, finely punctate, with short, black setation. Legs dark brown with yellow setation. Mesosternum coarsely punctate laterally, otherwise finely punctate, covered by long, recumbent, yellow setation. Abdominal visible ventrites black, with long, recumbent, yellow setation. Male genitalia as in Fig. 10.

Sexual dimorphism: Female is unknown.

Variability: The type series includes specimens with black or brown elytra (Figs 7-8). Measurements: TL 1.6-2.4mm, EW 1.1-1.6 mm.

Differential diagnosis: The new species is very similar to two Papuan species *O. biroi* Pic, 1956 (Papua New Guinea) and *O. fasciatus* (Matsumura et Yokoyama, 1928) (Papua New Guinea, Cambodia, Japan, Philippines, Singapore, Taiwan) but differs from them by the presence of a prescutellar spot on elytra (in *O. biroi* and *O. fasciatus* the prescutellar spot is missing); from other species it differs by the



Figures 4-6. *Orphinus jakli* sp. nov., holotype ♂. 4 – Habitus, dorsal view; 5 – Antennae; 6 – Male genitalia.

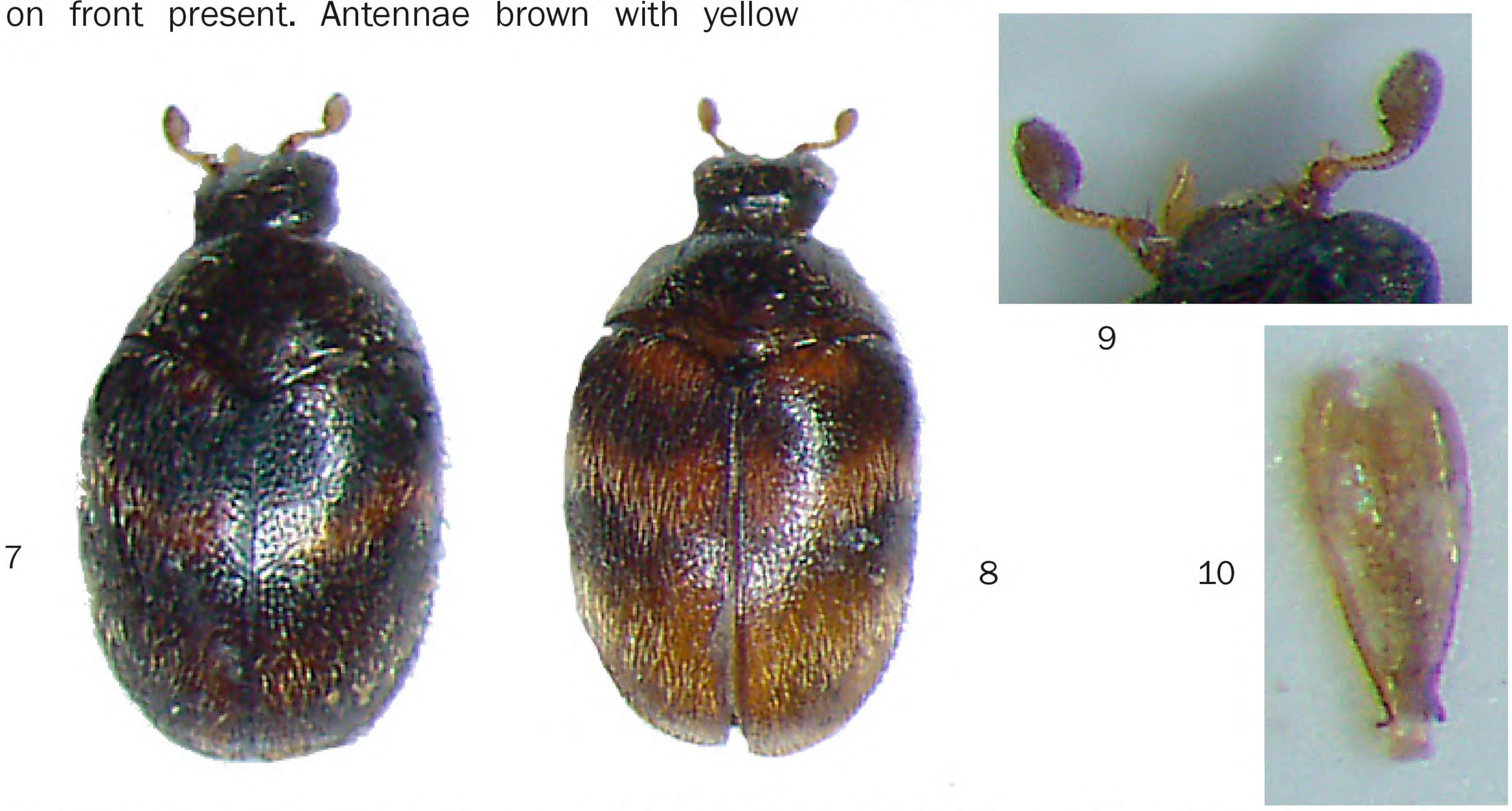
structure of antennae and male genitalia.

Orphinus (s. str.) ***buruanus* sp. nov.** (Figs 11-13)

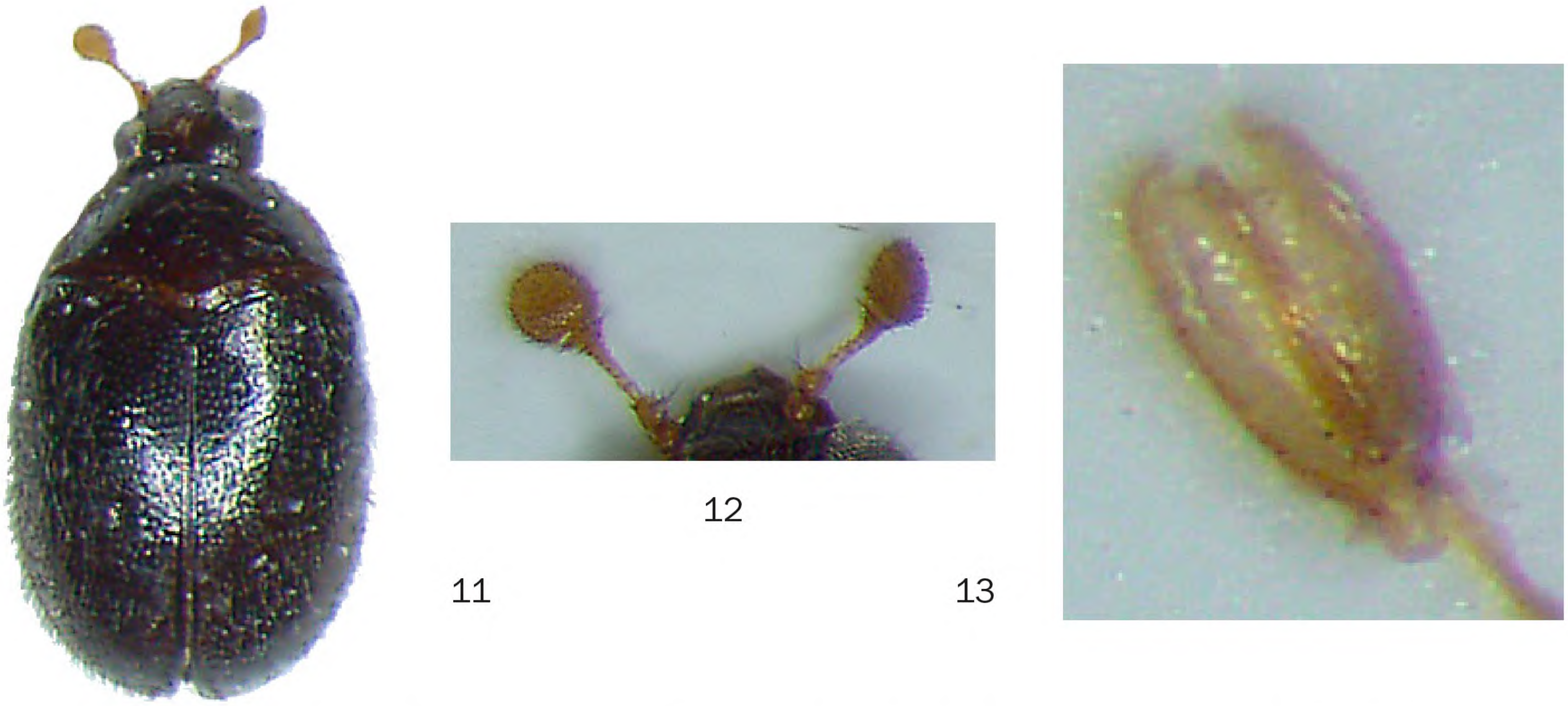
Holotype ♂ JHAC: Indonesia, Maluku, E Buru, Ilath env., Remaja Mt., 200 m, 7-14.i.2013, J. Horák lgt.
Paratypes 2♂ JHAC: same label as in holotype.

Derivatio nominis: Toponymic, named after the type locality Buru Island.

Description: Male. Body parallel and oval, TL 1.8-2.2 mm, EW 1.1-1.4 mm. Head, pronotum and elytra dark brown, shiny (Fig. 11), dark brown on venter. Head coarsely punctate with long, erect, brown setation. Palpi brown; setation on mentum denser. Eyes small, with yellow microsetae. Ocellus on front present. Antennae brown with yellow setae, with 11 antennomeres, antennal club with 2 antennomeres, terminal antennal segment circular (Fig. 12). Pronotum brown, disc finely punctate, densely foveolate posteriorly, with long, erect, brown setae. Scutellum brown, triangular, without setation. Elytra brown, finely punctate; humerus with a small bump; elytral surface with long, suberect brown setation. Epipleuron brown, anteriorly broad, finely punctate, with short, brown setation. Legs dark brown with brown setation. Mesosternum coarsely punctate laterally, otherwise finely punctate, covered by long, recumbent, brown setation. Abdominal visible ventrites brown, with long, recumbent, brown setation. Male genitalia as in Fig. 13.



Figures 7-10. *Orphinus soleae* sp. nov. 7 – Habitus, dorsal view, holotype ♂; 8 – Habitus, dorsal view, paratype ♀; 9 – Antennae; 10 – Male genitalia.



Figures 11-13. *Orphinus buruanus* sp. nov., holotype ♂. 11 – Habitus, dorsal aspect; 12 – Antennae; 13 – Male genitalia.

Sexual dimorphism: Female is unknown.

Differential diagnosis: The new species is similar to *O. harvey* Kadej et Háva, 2014 (Papua New Guinea) and *O. fulvipes* (Guérin-Méneville, 1838) (cosmopolitan species) but differs from them by the following characters:

1 Terminal antennal segment oval, anterior pronotal angles in male not visible from above, dorsal integument dark brown .... *O. harvey* Kadej, Háva, 2014

– Terminal antennal segment circular 2

2 Terminal antennal segment flat and large, anterior pronotal angles in male visible from above, dorsal integument from light brown to brown .... *O. fulvipes* (Guérin-Méneville, 1838)

– Terminal antennal segment small, anterior pronotal angles in male not visible from above, dorsal integument dark brown .... *O. buruanus* sp. nov.

List of Dermestidae species recorded from the Central Maluku Islands

Taxon	Ambon	Buru	Seram
Dermestinae, Tribe Dermestini			
Dermestes (*Dermestes*) *ater* DeGeer, 1774	X	X	X
Dermestes (*Dermestinus*) *maculatus* DeGeer, 1774		X	
Attageninae, Tribe Attagenini			
Attagenus undulatus (Motschulsky, 1858)		X	X
Katkaenus buruanus Háva, 2014		X	
Megatominae, Tribe Megatomini			
Orphinus (*Orphinus*) *buruanus* sp. nov.		X	
Orphinus (*Orphinus*) *jakli* sp. nov.		X	
Orphinus (*Orphinus*) *prescutellaris* sp. nov.		X	
Orphinus (*Orphinus*) *soleae* sp. nov.		X	
Thaumaglossa chujoi Ohbayashi, 1982	X		

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